

RAPPORTEURS' REPORT SWITZERLAND
ENSREG NATIONAL ACTION PLANS WORKSHOP

1.0 ASSESSMENT OF THE STRUCTURE OF NATIONAL ACTION PLAN

1.1 Compliance of the national action plan with the ENSREG Action Plan:

Switzerland followed the Structure proposed in the ENSREG Action Plan. National EU-Stress Test results were considered as well as ENSREG and CNS aspects. The findings from the follow-up plant visits were also addressed.

The aspects from the CNS Summary Report were not treated in a separate manner; instead they were addressed in the responses to the ENSREG Action Plan.

1.2 Adequacy of the information supplied, taking into account the guidance provided by ENSREG.

The Switzerland specific NAcP has followed the ENSREG guidance very closely.

The report used a consistent format of summarizing the “ENSREG recommendation”, one or more paragraphs describing “what has Switzerland done so far”, and a further one of more paragraphs describing “what will Switzerland do in the future”.

2.0 ASSESSMENT OF THE CONTENT OF NATIONAL ACTION PLAN

2.1 How has the country addressed the recommendations of the ENSREG Action Plan?

Following the events at Fukushima, the Swiss Federal Nuclear Safety Inspectorate (ENSI) issued three formal orders on the operators of the Swiss NPPs to implement immediate measures and to conduct additional reassessments.

Subsequently ENSI issued a fourth formal order in Jun 2011 instructing the Swiss operators to take part in the EU Stress Test.

All aspects from the “national action plan table 2012-10-16” from the NAcP guidance document, compiling the ENSREG and CNS recommendations and suggestions, have been covered. All of the topics from the ENSREG compilation of recommendations and suggestions have been responded to. The Swiss National Action Plan – Follow Up of the Peer Review 2012 Year-End Status Report along with the self-identified items covered in other referenced reports, notably the “Action Plan Fukushima” address all of the topics.

2.2. Schedule of the implementation of the NAcP

The implementation of improvement measures identified at European and National level in the aftermath of Fukushima is mostly clearly scheduled with much work already done, more due in 2013, but some work extends out to 2017, and a proportion of activities do

not have end dates specified (although it is recognized that this may be due to uncertainties in the workscope).

A significant programme of improvements, notably the development of a large national reserve store of accident management equipment at Reitnau completed in June 2011, is already complete.

The actions initiated in the wake of Fukushima and described in the yearly updated "Action Plan Fukushima" were originally scheduled to be completed by 2015. Because of some major backfitting projects related to additional requirements for long term operation, the schedule has been extended and full implementation is expected by 2017.

2.3 Transparency of the NAcP and of the process of the implementation of the tasks identified within it

The NAcP provides clear and comprehensive information on how the NPPs in the country will be improved in the aftermath of Fukushima according to the recommendations and suggestions of the European Stress Tests and the conclusions of the CNS process. The NAcP and the "Action plan Fukushima" are accessible on the regulator's website.

2.4 Commendable aspects (good practices, experiences, interesting approaches) and challenges

The Swiss have been engaged in a SSHAC Level 4 review of seismic hazard (exceedance frequency $1E-4/y$, mean) for the NPPs for a number of years, ahead of the events at Fukushima, this is envisaged to complete in 2013.

The Reitnau bunkered facility containing accident management (AM) equipment is a good practice, and was ready in a quick timescale. There is further work identified to fully implement it into the emergency response plans. A national emergency drill in this respect is planned for 2013.

ENSI operates an automatic dose rate monitoring system around the Swiss NPPs with measurements publicly available online. All Swiss NPPs connect to an emergency response information system which during an accident provides data to ENSI, the national emergency operations centre and to German and EU authorities.

The provision of 7 layers of AC power generation (3 operational, 2 backup, 1 local AM support, 1 external AM support) at all NPPs is seen as a good practice

The national response under "Action Plan Fukushima" provides a clear description of the comprehensive work identified by ENSI and the NPPs ahead of the ENSREG Stress Test.

The development of a multi-agency official working group to review emergency preparedness measures in case of extreme events in Switzerland (IDA NOMEX) is seen as a good practice and provides greater openness and transparency.

The issue reported in the NAcP of whether restoring containment integrity during shut-down in the case of a total SBO represents a time-critical measure may need further emphasis by the Swiss regulator ENSI.

3.0 PEER-REVIEW CONCLUSIONS

Switzerland's NAcP provides clear and comprehensive information on how the safety of their NPPs will be improved following the recommendations and suggestions of the European Stress Tests and the conclusions of the CNS process. The NAcP follows the structure proposed by ENSREG and covers all aspects specified in the ENSREG Action Plan.

Many improvement measures have already been completed; most notably the national store of accident management equipment at Reitnau was ready by June 2011. The work described in the NAcP will be complete mainly in 2015. Because of some major backfitting projects related to additional requirements for long term operation (special topic of the 4th periodic safety review), the full implementation is expected by 2017. Many other activities will be complete sooner, but some limited improvement activities in the National Action Plan do not clearly identify completion timescales, as the scope of the measures require further analysis. The detailed schedule is updated annually and published in the Swiss regulator's report titled "Action Plan Fukushima", this and the NAcP are accessible from the Swiss regulator's website.

Several commendable practices were identified, including the development of the national accident management equipment store at Reitnau, the multi-agency review organization (IDA NOMEX), all NPPs having 7 layers of AC power generation, and the implementation of the complex seismic hazard re-evaluation project PEGASOS.

The issue reported in the NAcP of whether restoring containment integrity during shut-down in the case of a total SBO represents a time-critical measure may need further emphasis by the Swiss regulator ENSI.

Nuclear safety is a process of continuous improvement enshrined in the Swiss law. Switzerland has made significant safety improvements following Fukushima and has a clear planning and reporting structure which will confirm when the remaining work is complete, currently expected to be 2017.